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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,315	03/09/2004	Ping-Hsu Chen	67,200-0640	4290

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EXAMINER

MCDONALD, SHANTESE L

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/797,315

Applicant(s)

CHEN ET AL.

Examiner

Shantese L. McDonald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1,4,9,14 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims have a "pre-mixing" limitation, but it is not clear as to what this limitation precedes. If you are mixing the slurries in-line, then this can be considered to be pre-mixing, because it is still being mixed before the slurry is utilized. This makes the claims confusing. In the instance of claim one, when you are mixing a first slurry with a second slurry, it becomes unclear between that limitation and the limitation of dependent claim 4, which claims pre-mixing the first slurry and the second slurry. There doesn't seem to be a difference in these method steps. Further, in claim 9, you are mixing and pre-mixing in the same method step.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,4-7,9-11,14-17,19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kondo et al.

Kondo et al. teaches a method for delivering a mixed slurry for use in a CMP operation, comprising delivering a first slurry, (prepared in preparation tank 2), mixing the first slurry with a second slurry, (L3), to provide a mixed slurry thereof, delivering the first slurry from a first slurry supply tank, 2, linked to at least one circulation pump, 41, delivering the second slurry from a second supply tank connected to at least one circulation pump, (col. 7, lines 12-21), and wherein the first and second supply tanks are operable in association with at least one valve, 561. Kondo et al. also teaches adjusting the mixing ration by measuring the weight of the first and second slurries, and adjusting the mixing ratios by controlling the flow rates, (col. 10, lines 20-56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,3,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. in view of Woo et al.

Kondo et al. teaches all the limitations of the claims except for mixing the first and second slurries in-line. Woo et al. teaches mixing the first slurry with a second slurry in-

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line, to provide a mixed slurry thereof, (col. 5, lines 13-38). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the system of Kondo et al. with the capability of in-line mixing, as taught by Woo et al., in order to enhance the efficiency of the systems slurry delivery.

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. in view of Osterheld et al.

Kondo et al. teaches all the limitations of the claims except for the mixing tank being associated with at least one load cell to control the mixing ratio. Osterheld teaches a load cell, 110. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to provide the system of Kondo et al. with a load cell, as taught by Osterheld, since the Kondo reference is silent as to what is used to weigh the slurries, and Osterheld teaches using a load cell, in order to weigh the slurry.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ferri, Jr. et al. was cited to show another example of a slurry delivery mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantese L. McDonald whose telephone number is (571) 272-4486. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S.L.M.
April 29, 2005

Joseph J. Hail, III
Supervisory Patent Examiner
Technology Center 3700